

## ABSTRACT OF THE DISCLOSURE

[0054] Customer virtual local area networks (C-VLANs) connecting multiple LAN segments are set up through a provider network (12). Provider edge bridges (PEs) are coupled to customer edge bridges (CEs) to provide a transparent link between LAN segments. To determine whether a backdoor link is used in the C-VLAN topology, PEs monitor MAC address from a predetermined time after a TCN is received to determine if there are contradictory addresses or new addresses relative to the existing MAC address tables (or forwarding databases) that are indicative of a backdoor link. If so, an unlearning message is sent to bridges in the provider domain. In another embodiment, CEs set a snoop bit to indicate which TCNs must be snooped.